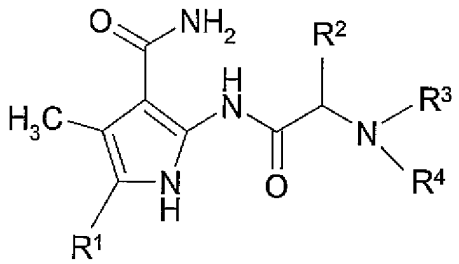
Amendments to the Claims:

1-45. (Canceled)

46. (New) A compound of the structure:



wherein:

R^1 is $CONH_2$, CH_2SCH_3, $CH_2SCH_2CH_3$, $CH_2CH_2SCH_3$, $CH_2CH_2SCH_2CH_3$, CH_2NCH_3, or $CH_2NCH_2CH_3$;

R^2 is H, CH_3, CH_2CH_3, CH_2SCH_3, $CH_2SCH_2CH_3$, $CH_2CH_2SCH_3$, or $CH_2CH_2SCH_2CH_3$;

R^3 is CH_3, C_2H_5, ηC_3H_7, iC_3H_7, or, ηC_4H_9; and

R4 is CH_3, C_2H_5, ηC_3H_7, iC_3H_7, or, ηC_4H_9.

47. (New) A compound of claim 46, wherein R^1 is $CH_2CH_2SCH_3$.

48. (New) A compound of claim 46, wherein R^2 is H.

49. (New) A compound of claim 46, wherein R^3 is C_2H_5.

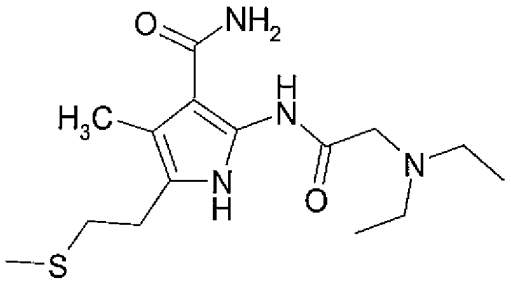
50. (New) A compound of claim 46, wherein R^3 is ηC_3H_7.

51. (New) A compound of claim 46, wherein R^4 is C_2H_5.

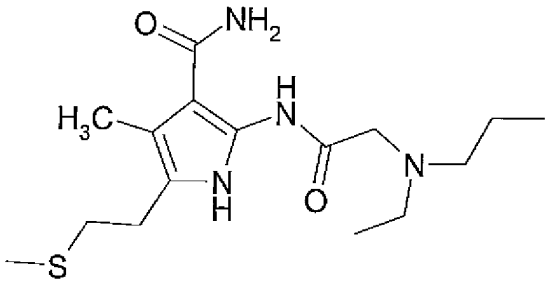
52. (New) A compound of claim 46, wherein R^1 is CH_2SCH_3, $CH_2SCH_2CH_3$, $CH_2CH_2SCH_3$, or $CH_2CH_2SCH_2CH_3$.

53. (New) A compound of claim 46, wherein R^1 is CH_2NCH_3, or $CH_2NCH_2CH_3$.

54. (New) A compound of claim 46 of the structure:



55. (New) A compound of claim 46 of the structure:



56. (New) A therapeutic composition comprising the compound of claim 46.

57. (New) A pharmaceutical composition comprising a pharmaceutically acceptable excipient and the compound of claim 46.

58. (New) A kit comprising a dosage form that includes a therapeutically effective amount of the compound of claim 46.

59. (New, Withdrawn) A method of inhibiting a phosphodiesterase enzyme, the method comprising contacting the phosphodiesterase enzyme with the compound of claim 46.

60. (New, Withdrawn) The method according to claim 59, wherein the phosphodiesterase enzyme comprises a phosphodiesterase-4 enzyme.

61. (New, Withdrawn) The method according to claim 59, wherein the phosphodiesterase enzyme comprises a phosphodiesterase-3 enzyme.

62. (New, Withdrawn) A method of inhibiting L-type calcium channels, the method comprising contacting an L-type calcium channel with the compound of claim 46.

63. (New, Withdrawn) A method of preventing or treating a cardiovascular or respiratory disorder in a subject, the method comprising administering to the subject an effective amount of the compound of claim 46.

64. (New, Withdrawn) The method according to claim 63, wherein the compound is a phosphodiesterase inhibitor.

65. (New, Withdrawn) The method according to claim 64, wherein the compound is a cAMP-specific phosphodiesterase inhibitor.

66. (New, Withdrawn) The method according to claim 64, wherein the compound is a selective phosphodiesterase inhibitor.

67. (New, Withdrawn) The method according to claim 64, wherein the compound is a selective phosphodiesterase-4 inhibitor.

68. (New, Withdrawn) The method according to claim 67, wherein the selective phosphodiesterase-4 inhibitor has an IC_{50} for inhibition of phosphodiesterase-3 of greater about 60 μM.

69. (New, Withdrawn) The method according to claim 67, wherein the phosphodiesterase-4 inhibitor provides an IC_{50} of less than about 200 μM.

70. (New, Withdrawn) The method according to claim 67, wherein the phosphodiesterase-4 inhibitor provides an IC_{50} of less than about 50 μM.

71. (New, Withdrawn) The method according to claim 67, wherein the phosphodiesterase-4 inhibitor provides an IC_{50} of less than about 5 μM.

72. (New, Withdrawn) The method according to claim 67, wherein the phosphodiesterase-4 inhibitor provides an IC_{50} of about 2 μM.

73. (New, Withdrawn) The method according to claim 64, wherein the compound is a phosphodiesterase-3 inhibitor.

74. (New, Withdrawn) The method according to claim 63, wherein the subject is one that is in need of the prevention or treatment of a cardiovascular or respiratory disorder.

75. (New, Withdrawn) The method according to claim 63, wherein the cardiovascular disorder is chosen from myocardial ischemia, transient ischemic attack, hypertension, hypotension, heart arrhythmias, including atrial fibrillation and flutter, tachycardia, and ventricular fibrillation, pulmonary hypertension, hypokalemia, angina pectoris, cardiac ischemia, myocardial infarction, cardiac remodeling, cardiac fibrosis, myocardial necrosis, aneurysm, arterial fibrosis, embolism, vascular plaque inflammation, vascular plaque rupture, bacterial-induced inflammation and viral induced inflammation, edema, swelling, fluid accumulation, cirrhosis of the liver, Bartter's syndrome, myocarditis arteriosclerosis, atherosclerosis, calcification (such as vascular calcification and valvar calcification), coronary artery disease, coronary heart disease, peripheral arterial disease, heart failure, congestive heart failure, shock, stroke, left ventricular hypertrophy, angina, diabetic nephropathy, kidney failure, eye damage, cardiac damage, diabetic cardiac myopathy, renal insufficiency, renal injury, renal arteriopathy, peripheral vascular disease, left ventricular hypertrophy, cognitive dysfunction, headache, aortic aneurysm, deep vein thrombosis, bacterial endocarditis, cardiomyopathy, congenital cardiovascular defects, rheumatic heart disease, valvular

heart disease, Adams-Stokes disease, antiphospholipid syndrome, aortic regurgitation, long Q-T syndrome, Marfan syndrome, Raynaud's syndrome, Wolff-Parkinson-White syndrome (WPW).

76. (New, Withdrawn) The method according to claim 63, wherein the respiratory disorder is chosen from asthma, spasmodic asthma, bronchitis, chronic obstructive pulmonary disease (COPD), cystic fibrosis, pulmonary embolism, pneumonia, pulmonary fibrosis, respiratory failure, acute respiratory distress syndrome, bronchiectasis, rhinitis, chronic rhinitis, sinusitis, chronic sinusitis, emphysema, pulmonary sarcoidosis, tuberculosis, alpha-1 antitrypsin deficiency, allergies, alveolar capillary dysplasia, asbestosis, black lung, bronchiolitis, cold, goodpasture syndrome, laryngeal cancer, laryngomalacia, legionnaires' disease, lung cancer, lymphagioleiomyomatosis (LAM), persistent cough, pleurisy (Pleuritis), Pneumothorax, Respiratory Syncytial Virus (RSV), severe acute respiratory syndrome (SARS), silicosis, sinus infection, tonsillitis, valley fever, recurrent respiratory papillomatosis, bronchopulmonary dysplasia (BPD), influenza, hantavirus pulmonary syndrome (HPS), hayfever, primary ciliary dyskinesia (PCD), kartagener's syndrome, lymphangioleiomyomatosis (LAM), mesothelioma, primary pulmonary hypertension (PPH), spontaneous pneumothorax, meningococcemia, and wegener's granulomatosis.

77. (New, Withdrawn) A method of modulating the activity of a phosphodiesterase enzyme in a subject in need of such modulation, the method comprising administering to the subject the compound of claim 46.

78. (New, Withdrawn) A method of modulating the activity of an L-type calcium channel in a subject in need of such modulation, the method comprising administering to the subject the compound of claim 46.

79. (New, Withdrawn) A method of modulating the activity of a phosphodiesterase enzyme and an L-type calcium channel in a subject in need of such modulation, the method comprising administering to the subject the compound of claim 46.

80. (New, Withdrawn) A method of preventing or treating a respiratory disorder in a subject, the method comprising administering to the subject the compound having of claim 46 in combination with a β-adrenergic agonist.

81. (New, Withdrawn) The method according to claim 80, wherein the β-adrenergic agonist comprises a β_2-adrenergic agonist.

82. (New, Withdrawn) The method according to claim 81, wherein the β_2-adrenergic agonist comprises at least one compound chosen from metaproterenol, pirbuterol, albuterol, levalbuterol, formoterol, salmeterol, terbutaline, isoetharine, levalbuterol, salbutamol, bambuterol, fenoterol, reproterol, tulobuterol, and mixtures thereof.

83. (New, Withdrawn) Use of a compound having a structure described in claim 46 alone or in combination with a β-adrenergic agonist for the production of a medicament for the preventing or treating a cardiovascular or respiratory disorder in a subject.